

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NEW YORK

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THOMAS J. GENTILE, TOMMY MCGARRY,
and CHARLES O'KEEFE, individually and on
behalf of all others similarly situated,

Plaintiffs,

-against -

Case No.

THE 3M COMPANY, f/k/a Minnesota Mining
and Manufacturing Co., AGC, INC., f/k/a Asahi
Glass Co. Ltd., AGC CHEMICALS AMERICAS
INC., AMEREX CORPORATION, ANGUS
FIRE ARMOUR CORPORATION, ANGUS
INTERNATIONAL SAFETY GROUP, LTD.,
ARKEMA FRANCE, S.A., ARKEMA INC.,
ARCHROMA U.S., INC., BASF
CORPORATION, individually and as successor
in interest to Ciba Inc., BUCKEYE FIRE
EQUIPMENT COMPANY, CHEMGUARD,
INC., CHEMICALS, INC., CHUBB FIRE LTD.,
CLARIANT CORPORATION, individually and
as successor in interest to Sandoz Chemical
Corporation, CORTEVA, INC., individually and
as successor in interest to DuPont Chemical
Solutions, DAIKIN AMERICA, INC., DAIKIN
INDUSTRIES LTD., DEEPWATER
CHEMICALS, INC., DUPONT DE NEMOURS
INC., individually and as successor in interest to
DuPont Chemical Solutions, DYNAX
CORPORATION, DYNEON, LLC, E. I.
DUPONT DE NEMOURS AND COMPANY,
individually and as successor in interest to
DuPont Chemical Solutions, FIRE SERVICES
PLUS, INC., KIDDE, P.L.C., KIDDE-
FENWAL, INC., individually and as successor in
interest to Kidde Fire Fighting, Inc., NARCHEM
CORPORATION, NATION FORD CHEMICAL
COMPANY, NATIONAL FOAM, INC.,
RAYTHEON TECHNOLOGIES
CORPORATION, SOLVAY SPECIALTY
POLYMERS, USA, LLC., THE CHEMOURS
COMPANY, individually and as successor in

CLASS ACTION COMPLAINT
WITH INDIVIDUAL CLAIMS
AND DEMAND FOR JURY
TRIAL

interest to DuPont Chemical Solutions, THE
CHEMOURS COMPANY FC, LLC,
individually and as successor in interest to
DuPont Chemical Solutions, THE ELE
CORPORATION, and UTC FIRE & SECURITY
AMERICAS CORPORATION, INC.,

Defendants.

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COMPLAINT

Plaintiffs, THOMAS J. GENTILE, TOMMY MCGARRY, and CHARLES O'KEEFE (collectively "Plaintiffs"), by and through their undersigned counsel, hereby file this Class Action Complaint, individually, and on behalf of all others similarly situated, against Defendants THE 3M COMPANY, f/k/a Minnesota Mining and Manufacturing Co., AGC, INC., f/k/a Asahi Glass Co. Ltd., AGC CHEMICALS AMERICAS INC., AMEREX CORPORATION, ANGUS FIRE ARMOUR CORPORATION, ANGUS INTERNATIONAL SAFETY GROUP, LTD., ARKEMA FRANCE, S.A., ARKEMA INC., ARCHROMA U.S., INC., BASF CORPORATION, individually and as successor in interest to Ciba Inc., BUCKEYE FIRE EQUIPMENT COMPANY, CHEMGUARD, INC., CHEMICALS, INC., CHUBB FIRE LTD., CLARIANT CORPORATION, individually and as successor in interest to Sandoz Chemical Corporation, CORTEVA, INC., individually and as successor in interest to DuPont Chemical Solutions, DAIKIN AMERICA, INC., DAIKIN INDUSTRIES LTD., DEEPWATER CHEMICALS, INC., DUPONT DE NEMOURS INC., individually and as successor in interest to DuPont Chemical Solutions, DYNAX CORPORATION, DYNEON, LLC, E. I. DUPONT DE NEMOURS AND COMPANY, individually and as successor in interest to DuPont Chemical Solutions, FIRE SERVICES PLUS, INC., KIDDE, P.L.C., KIDDE-FENWAL, INC., individually and as successor in interest to Kidde Fire Fighting, Inc., NARCHEM CORPORATION, NATION FORD

CHEMICAL COMPANY, NATIONAL FOAM, INC., RAYTHEON TECHNOLOGIES CORPORATION, SOLVAY SPECIALTY POLYMERS, USA, LLC., THE CHEMOURS COMPANY, individually and as successor in interest to DuPont Chemical Solutions, THE CHEMOURS COMPANY FC, LLC, individually and as successor in interest to DuPont Chemical Solutions, THE ELE CORPORATION, and UTC FIRE & SECURITY AMERICAS CORPORATION, INC. (collectively “Defendants”), and allege, upon information and belief, as follows:

INTRODUCTION

1. Plaintiffs, on behalf of themselves and all other similarly-situated individuals, bring this action for damages sustained to their person and for medical monitoring resulting from exposure to aqueous film-forming foam (“AFFF”) containing the toxic chemicals perfluorooctane sulfonate (“PFOS”), perfluorooctanoic acid (“PFOA”), and/or their chemical precursors, and from exposure to groundwater, surface water, and affected areas contaminated with per- and poly-fluoroalkyl substances (“PFAS”).

2. PFOS and PFOA are fluorosurfactants that repel oil, grease, and water. PFOS and PFOA, and/or their chemical precursors, are or were components of AFFF products, which are firefighting suppressant agents used in training and firefighting activities for fighting Class B fires. Class B fires include fires involving hydrocarbon fuels such as petroleum or other flammable liquids.

3. PFOS and PFOA are mobile, persist indefinitely in the environment, bioaccumulate in individual organisms and humans, and biomagnify up the food chain. PFOS and PFOA are also associated with serious health conditions in humans, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, liver dysfunction, pregnancy induced

hypertension (including preeclampsia), hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

4. At various times from the 1960s through today, Defendants designed, manufactured, marketed, distributed, and/or sold AFFF products containing PFOS, PFOA, and/or their chemical precursors, and/or designed, manufactured, marketed, distributed, and/or sold the fluorosurfactants and/or perfluorinated chemicals (“PFCs”) contained in AFFF (collectively, “AFFF/Component Products”).

5. Defendants designed, manufactured, marketed, distributed, and/or sold AFFF/Component Products with the knowledge that these toxic compounds would be released into the environment during fire protection, training, and response activities, even when used as directed and intended by Defendants.

6. Since its creation in the 1960s, AFFF was designed, manufactured, marketed, distributed, and/or sold by Defendants, and/or that contained fluorosurfactants and/or PFCs designed, manufactured, marketed, distributed, and/or sold by Defendants, used as directed and intended by Defendants, and subsequently released into the environment during fire protection, training, and response activities, resulting in widespread PFAS contamination.

7. Plaintiffs and the putative class members are firefighters who worked and/or trained at fire departments throughout the State of New York that have sustained injuries and damages as a result of direct, secondary, and/or take-home exposure to Defendants’ AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors.

8. Over the course of the past several decades, Plaintiffs and the putative class members were routinely exposed to PFAS at the fire departments or fire training centers where

AFFF products containing PFOS, PFOA, and/or their chemical precursors were used, handled, and stored, resulting in significant personal injuries and a need for medical monitoring.

9. Plaintiffs and the putative class members used these AFFF products in their intended manner and without significant change in the products' condition. Unaware of the dangerous properties of Defendants' AFFF/Component Products, Plaintiffs relied on inadequate warnings and instructions provided by Defendants regarding the proper methods for handling and storing the products. Plaintiffs' and the putative class members' use, consumption, inhalation, ingestion, and/or dermal absorption of PFAS from Defendants' AFFF/Component Products has caused them to develop numerous serious medical conditions, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, liver dysfunction, pregnancy induced hypertension (including preeclampsia), hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

10. As if the danger inherent in being a firefighter was not enough, Defendants further increased the occupational risk to Plaintiffs' and the putative class members' health by designing, manufacturing, marketing, and/or distributing AFFF/Component Products sold across the State of New York, knowing full well that those products were dangerous because they contained PFOS, PFOA, and/or their chemical precursors.

11. Plaintiffs, individually and on behalf of other similarly situated current and former firefighters in the State of New York, seek to hold Defendants accountable for this callous and tortious conduct; conduct that unfolded over the course of several decades and has endangered the health and safety of some of New York's bravest citizens.

JURISDICTION AND VENUE

12. This Court has subject matter jurisdiction under the Class Action Fairness Act of 2005 (“CAFA”), 28 U.S.C. § 1332(d). Plaintiffs are current residents of the State of New York and are diverse from at least one of Defendants named in this Complaint. Further, the putative class has more than 100 members and the amount in controversy exceeds five million dollars (\$5,000,000.00), exclusive of interest and costs.

13. Venue is proper in this Court pursuant to 28 U.S.C. §1391(b)(2) because the events or omissions by Defendants giving rise to the claims asserted herein occurred in New York and caused harm to Plaintiffs and the Class Members, whom resided or reside in this District.

14. This Court has personal jurisdiction over Defendants by virtue of each Defendants’ regular and systematic contacts with the State of New York, including, among other things, purposefully marketing, selling and/or distributing their AFFF/Component Products to and within New York, and because they have the requisite minimum contacts with New York necessary to constitutionally permit the Court to exercise jurisdiction over them consistent with traditional notions of fair play and substantial justice.

PARTIES

A. Plaintiffs

15. **Plaintiff Thomas J. Gentile** (“Plaintiff Gentile”) currently resides at 532 North 6th Street, New Hyde Park, New York 11040.

16. Plaintiff Gentile has worked as a firefighter from 1998 to present time at the Brooklyn Fire Department. During Plaintiff Gentile’s employment as a firefighter, he was exposed to significantly elevated levels of PFAS as a result of regular contact with and use of Defendants’ AFFF/Component Products.

17. Plaintiff Gentile used AFFF containing PFAS, used equipment/gear coated with materials containing and/or contaminated with PFAS, and was otherwise exposed to elevated levels of PFAS as a direct and proximate result of his use, consumption, inhalation, ingestion, and/or dermal absorption of Defendants' AFFF/Component Products.

18. Plaintiff Gentile has been diagnosed with testicular cancer as a direct and proximate result of his exposure to PFAS and is at an increased risk of developing several other serious health conditions, including but not limited to kidney cancer, ulcerative colitis, thyroid disease, liver dysfunction, hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

19. Plaintiff Gentile has a legitimate fear of developing these debilitating injuries as a result of the exposure to PFAS caused by his regular contact with and use of Defendants' AFFF/Component Products.

20. **Plaintiff Tommy McGarry** ("Plaintiff McGarry") currently resides at 4755 Ashley Lake Circle, Vero Beach, Florida 32967.

21. Plaintiff McGarry worked as a firefighter in the State of New York from 1991 to 2012. At all relevant times, Plaintiff McGarry resided at S Perimeter Road, Westhampton, NY 11978. During Plaintiff McGarry's employment as a firefighter, he was exposed to significantly elevated levels of PFAS as a result of regular contact with and use of Defendants' AFFF/Component Products.

22. Plaintiff McGarry used AFFF containing PFAS, used equipment/gear coated with materials containing and/or contaminated with PFAS, and was otherwise exposed to elevated levels of PFAS as a direct and proximate result of his use, consumption, inhalation, ingestion, and/or dermal absorption of Defendants' AFFF/Component Products.

23. Plaintiff McGarry has suffered from chronic fatigue, heart disease, and high

cholesterol as a direct and proximate result of his exposure to PFAS and is at an increased risk of developing several other serious health conditions, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, liver dysfunction, and autoimmune diseases such as sarcoidosis.

24. Plaintiff McGarry has a legitimate fear of developing these debilitating injuries as a result of the exposure to PFAS caused by his regular contact with and use of Defendants' AFFF/Component Products.

25. **Plaintiff Charles O'Keefe** ("Plaintiff O'Keefe") currently resides at 212 Crofts Road, Hurley, New York 12433.

26. Plaintiff O'Keefe has worked as a firefighter at the Stewart Air National Guard Base Fire Department since 2009. During Plaintiff O'Keefe's time as a firefighter, he was exposed to significantly elevated levels of PFAS as a result of regular contact with and use of Defendants' AFFF/Component Products.

27. Plaintiff O'Keefe used AFFF containing PFAS, used equipment/gear coated with materials containing and/or contaminated with PFAS, and was otherwise exposed to elevated levels of PFAS as a direct and proximate result of his use, consumption, inhalation, ingestion, and/or dermal absorption of Defendants' AFFF/Component Products.

28. Plaintiff O'Keefe has been exposed to elevated levels of PFAS and is at an increased risk of developing several serious health conditions, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, liver dysfunction, hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

29. Plaintiff O'Keefe has a legitimate fear of developing these debilitating injuries as a result of the exposure to PFAS caused by his regular contact with and use of Defendants'

AFFF/Component Products.

B. Defendants

i. The AFFF Defendants

30. The term “**AFFF Defendants**” refers collectively to Defendants 3M Company, Buckeye Fire Equipment Company, Chemguard Inc., Tyco Fire Products L.P., National Foam, Inc., Angus International Safety Group, Ltd., Angus Fire Armour Corporation, Amerex Corporation, Kidde-Fenwal, Inc., Kidde P.L.C., Inc., UTC Fire & Security Americas Corporation, Inc., United Technologies Corporation, Chubb Fire Ltd., and Fire Service Plus, Inc.

31. **Defendant 3M Company f/k/a Minnesota Mining and Manufacturing Co. (“3M”)** is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business located at 3M Center, St. Paul, Minnesota 55144-1000.

32. Beginning before 1970 and until at least 2002, 3M designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

33. **Defendant Amerex Corporation (“Amerex”)** is a corporation organized and existing under the laws of the State of Alabama, with its principal place of business located at 7595 Gadsden Highway, Trussville, AL 35173.

34. Amerex is a manufacturer of firefighting products. Beginning in 1971, it was a manufacturer of hand portable and wheeled extinguishers for commercial and industrial applications.

35. In 2011, Amerex acquired Solberg Scandinavian AS, one of the largest manufacturers of AFFF products in Europe.

36. On information and belief, beginning in 2011, Amerex designed, manufactured, marketed distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

37. **Defendant Tyco Fire Products LP (“Tyco”)** is a limited partnership organized under the laws of the State of Delaware, with its principal place of business located at One Stanton Street, Marinette, Wisconsin 54143-2542.

38. On information and belief, Tyco is a subsidiary of Johnson Controls International PLC, an Irish public limited company listed on the New York Stock Exchange.

39. Tyco is the successor in interest of The Ansul Company (“Ansul”), having acquired Ansul in 1990.

40. Beginning in or around 1975, Ansul designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

41. After Tyco acquired Ansul in 1990, Tyco/Ansul continued to design, manufacture, market, distribute, and sell AFFF products containing PFAS, including but not limited to PFOA and PFOS.

42. **Defendant Chemguard, Inc. (“Chemguard”)** is a corporation organized under the laws of the State of Texas, with its principal place of business located at One Stanton Street, Marinette, Wisconsin 54143.

43. On information and belief, Chemguard is a subsidiary of Johnson Controls International PLC, an Irish public limited company listed on the New York Stock Exchange.

44. On information and belief, Chemguard designed, manufactured, marketed, distributed, and sold AFFF products containing PFAS, including but not limited to PFOA and PFOS.

45. **Defendant Buckeye Fire Equipment Company (“Buckeye”)** is a corporation organized under the laws of the State of Ohio, with its principal place of business located at 110 Kings Road, Kings Mountain, North Carolina 28086.

46. On information and belief, Buckeye designed, manufactured, marketed, distributed, and sold AFFF products containing PFAS, including but not limited to PFOA and PFOS.

47. **Defendant National Foam, Inc. (“National Foam”)** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 141 Junny Road, Angier, North Carolina 27501.

48. Beginning in or around 1973, National Foam designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

49. On information and belief, National Foam currently manufactures the Angus brand of AFFF products and is a subsidiary of Angus International Safety Group.

50. **Chubb Fire, Ltd. (“Chubb”)** is a foreign private limited company, with offices at Littleton Road, Ashford, Middlesex, United Kingdom TW15 1TZ. On information and belief, Chubb is registered in the United Kingdom with a registered number of 134210.

51. On information and belief, Chubb merged with National Foam to form Chubb National Foam, Inc. in or around 1988.

52. On information and belief, Chubb is or has been composed of different subsidiaries and/or divisions, including but not limited to, Chubb Fire & Security Ltd., Chubb Security, PLC, Red Hawk Fire & Security, LLC, and/or Chubb National Foam, Inc.

53. On information and belief, Chubb was acquired by Williams Holdings in 1997.

54. **Defendant Angus Fire Armour Corporation (“Angus Fire”)** is a corporation organized and existing under the laws of Delaware, with its principal place of business at 141 Junny Road, Angier, North Carolina 27501.

55. On information and belief, Angus Fire was acquired by Williams Holdings in 1994.

56. On information and belief, Angus Fire is currently a subsidiary of Angus International Safety Group, Ltd.

57. **Defendant Kidde P.L.C., Inc. (“Kidde P.L.C.”)** is a foreign corporation organized and existing under the laws of Delaware, with its principal place of business at One Carrier Place, Farmington, Connecticut 06034.

58. On information and belief, Williams Holdings was demerged into Chubb and Kidde P.L.C. in or around 2000.

59. **Defendant Kidde-Fenwal, Inc. (“Kidde-Fenwal”)** is a corporation organized under the laws of the State of Delaware, with its principal place of business at One Financial Plaza, Hartford, Connecticut 06101.

60. On information and belief, Kidde-Fenwal is the successor-in-interest to Kidde Fire Fighting, Inc. (f/k/a Chubb National Foam, Inc. f/k/a National Foam System, Inc.) (collectively, “Kidde/Kidde Fire”).

61. **Defendant Raytheon Technologies Corporation (“Raytheon Technologies”)** is a foreign corporation organized and existing under the laws of Delaware, with its principal place of business at 10 Farm Springs Road, Farmington, Connecticut 06032.

62. On information and belief, Kidde P.L.C. was acquired by United Technologies Corporation in or around 2005.

63. On information and belief, Kidde-Fenwal, Inc. became part of the UTC Control & Security unit of United Technologies Corporation.

64. On information and belief, United Technologies Corporation merged with Raytheon Company to form Raytheon Technologies in or around April 2020.

65. **Defendant UTC Fire & Security Americas Corporation, Inc. (“UTC Fire”)** is a corporation organized and existing under the laws of North Carolina, with its principal place of business at 3211 Progress Drive, Lincolnton, North Carolina 28092.

66. On information and belief, UTC Fire was created when United Technologies Corporation acquired Kidde P.L.C. and combined it with Chubb in or around 2005.

67. On information and belief, UTC Fire became a subsidiary of Raytheon Technologies when United Technologies Corporation merged with Raytheon Company in April 2020.

68. **Defendant Angus International Safety Group, Ltd.** is a foreign private limited company, with offices at Station Road, High Bentham, Near Lancaster, United Kingdom LA2 7NA. On information and belief, Angus International is registered in the United Kingdom with a registered number of 8441763.

69. On information and belief, Angus International Safety Group was formed when Angus Fire and National Foam separated from United Technologies in or around 2013.

70. **Defendant Fire Service Plus, Inc. (“Fire Service Plus”)** is a corporation organized under the laws of the State of Georgia, with its principal place of business located at 180 Etowah Trace, Fayetteville, GA 30214.

71. On information and belief, Fire Service Plus designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

72. On information and belief, the AFFF Defendants designed, manufactured, marketed, distributed, and sold AFFF products containing PFOS, PFOA, and/or their chemical precursors that were stored, handled, used, trained with, tested equipment with, otherwise discharged, and/or disposed by Plaintiffs and the putative class members.

ii. The Fluorosurfactant Defendants

73. The term “**Fluorosurfactant Defendants**” refers collectively to Defendants Arkema France, S.A., Arkema Inc., BASF Corporation, ChemDesign Products Incorporated, Chemguard Inc., Deepwater Chemicals, Inc., E.I. DuPont de Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, DuPont de Nemours Inc., Dynax Corporation, and Dyneon LLC.

74. **Arkema Inc.** is a corporation organized and existing under the laws of Pennsylvania, with its principal place of business at 900 First Avenue, King of Prussia, PA 19406.

75. Arkema Inc. develops specialty chemicals and polymers.

76. Arkema, Inc. is an operating subsidiary of Defendant Arkema France, S.A.

77. **Arkema France S.A. (“Arkema France”)** is a publicly-traded foreign corporation with its principal place of business in Colombes, France. Arkema France S.A. is the parent corporation of Arkema Inc.

78. Arkema France and Arkema Inc. are collectively referred to as “Arkema.”

79. On information and belief, Arkema designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

80. **Defendant BASF Corporation (“BASF”)** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 100 Park Avenue, Florham Park, New Jersey 07932.

81. On information and belief, BASF is the successor-in-interest to Ciba. Inc. (f/k/a Ciba Specialty Chemicals Corporation).

82. On information and belief, Ciba Inc. designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

83. **Defendant ChemDesign Products Inc. (“ChemDesign”)** is a corporation organized under the laws of Delaware, with its principal place of business located at 2 Stanton Street, Marinette, WI, 54143.

84. On information and belief, ChemDesign designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products

85. **Defendant Deepwater Chemicals, Inc. (“Deepwater”)** is a corporation organized under the laws of Delaware, with its principal place of business located at 196122 E County Road 40, Woodward, OK, 73801.

86. On information and belief, Deepwater Chemicals designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products

87. **Defendant Dynax Corporation (“Dynax”)** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 103 Fairview Park Drive, Elmsford, New York 10523.

88. On information and belief, Dynax entered into the AFFF market on or about 1991 and quickly became a leading global producer of fluorosurfactants and fluorochemical stabilizers containing PFOS, PFOA, and/or their chemical precursors.

89. On information and belief, Dynax designed, manufactured, marketed, distributed, and sold fluorosurfactants and fluorochemical stabilizers containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

90. **Defendant Dyneon, LLC (“Dyneon”)** is a corporation organized and existing under the laws of the State of Pennsylvania, with its principal place of business at 6744 33rd Street N, Oakdale, Minnesota 55128.

91. On information and belief, Dyneon was created in 1996 by 3M and Hoechst AG as a joint venture fluoropolymer business.

92. On information and belief, Dyneon became a wholly-owned subsidiary of 3M after the latter agreed to buy out Hoechst AG’s minority stake in 1999.

93. On information and belief, Dyneon designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

94. **Defendant E.I. du Pont de Nemours & Company (“DuPont”)** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 974 Centre Road, Wilmington, Delaware 19805.

95. **Defendant The Chemours Company (“Chemours Co.”)** is a limited liability company organized under the laws of the State of Delaware, with its principal place of business located at 1007 Market Street, P.O. Box 2047, Wilmington, Delaware, 19899.

96. In 2015, DuPont spun off its performance chemicals business to Chemours Co., along with vast environmental liabilities which Chemours Co. assumed, including those related to PFOS and PFOA and fluorosurfactants. On information and belief, Chemours Co. has supplied

fluorosurfactants containing PFOS and PFOA, and/or their chemical precursors to manufacturers of AFFF products.

97. On information and belief, Chemours Co. was incorporated as a subsidiary of DuPont as of April 30, 2015. From that time until July 2015, Chemours Co. was a wholly-owned subsidiary of DuPont.

98. In July 2015, DuPont spun off Chemours Co. and transferred to Chemours Co. its “performance chemicals” business line, which includes its fluoroproducts business, distributing shares of Chemours Co. stock to DuPont stockholders, and Chemours Co. has since been an independent, publicly-traded company.

99. **Defendant The Chemours Company FC, LLC (“Chemours FC”)** is a limited liability company organized under the laws of the State of Delaware, with its principal place of business located at 1007 Market Street, Wilmington, Delaware, 19899.

100. **Defendant Corteva, Inc. (“Corteva”)** is a corporation organized and existing under the laws of Delaware, with its principal place of business at 974 Centre Rd., Wilmington, Delaware 19805.

101. **Defendant Dupont de Nemours Inc. f/k/a DowDuPont, Inc. (“Dupont de Nemours Inc.”)** is a corporation organized and existing under the laws of Delaware, with its principal place of business at 974 Centre Road, Wilmington, Delaware 19805 and 2211 H.H. Dow Way, Midland, Michigan 48674.

102. On June 1, 2019, DowDuPont separated its agriculture business through the spin-off of Corteva.

103. Corteva was initially formed in February 2018. From that time until June 1, 2019, Corteva was a wholly-owned subsidiary of DowDuPont.

104. On June 1, 2019, DowDuPont distributed to DowDuPont stockholders all issued and outstanding shares of Corteva common stock by way of a pro-rata dividend. Following that distribution, Corteva became the direct parent of E. I. Du Pont de Nemours & Co.

105. Corteva holds certain DowDuPont assets and liabilities, including DowDuPont's agriculture and nutritional businesses.

106. On June 1, 2019, DowDuPont, the surviving entity after the spin-off of Corteva and of another entity known as Dow, Inc., changed its name to DuPont de Nemours, Inc., to be known as DuPont ("New DuPont"). New DuPont retained assets in the specialty products business lines following the above-described spin-offs, as well as the balance of the financial assets and liabilities of E.I DuPont not assumed by Corteva.

107. Defendants E. I. Du Pont de Nemours and Company; The Chemours Company; The Chemours Company FC, LLC; Corteva, Inc.; and DuPont de Nemours, Inc. are collectively referred to as "DuPont" throughout this Complaint.

108. On information and belief, DuPont designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

109. On information and belief, Chemguard also designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

110. On information and belief, the Fluorosurfactant Defendants designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products that were stored, handled, used, trained with,

tested equipment with, otherwise discharged, and/or disposed by Plaintiffs and the putative class members.

iii. The PFC Defendants

111. The term “**PFC Defendants**” refers collectively to 3M, AGC, Inc., AGC Chemicals Americas Inc., Archroma U.S., Inc., ChemDesign Products Inc., Chemicals, Inc., Clariant Corporation, Daikin America, Inc., Daikin Industries Ltd., Deepwater Chemicals, Inc., E.I. DuPont de Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, Corteva, Inc., DuPont de Nemours Inc., The Ele Corporation, Narchem Corporation, Nation Ford Chemical Company, and Solvay Special Polymers USA LLC.

112. **Defendant AGC, Inc. f/k/a Asahi Glass Co. Ltd.** is a foreign corporation organized under the laws of Japan, with its a principal place of business in Tokyo, Japan.

113. **Defendant AGC Chemicals Americas, Inc.** is a corporation organized and existing under the laws of Delaware, having its principal place of business at 55 East Uwchlan Avenue, Suite 201, Exton, PA 19341.

114. On information and belief, AGC Chemicals Americas, Inc. was formed in 2004 and is a subsidiary of AGC Inc.

115. AGC, Inc. and AGC Chemicals Americas, Inc. are collectively referred to herein as “AGC.”

116. AGC manufactures specialty chemicals. It offers glass, electronic displays, and chemical products, including resins, water and oil repellants, greenhouse films, silica additives, and various fluorointermediates.

117. On information and belief, AGC designed, manufactured, marketed, distributed, and sold PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

118. **Defendant Archroma U.S., Inc. (“Archroma”)** is a corporation organized and existing under the laws of Delaware, with its a principal place of business at 543577 Center Drive., Ste. 10, Charlotte, NC 28217-0750.

119. On information and belief, Archroma U.S., Inc. is a subsidiary of Archroma Management LLC, a foreign corporation based in Reinach, Switzerland. Archroma U.S., Inc. and Archroma Management LLC are collectively referred to as “Archroma” throughout this Complaint.

120. On information and belief, Archroma was formed in 2013 when Clariant Corporation divested its textile chemicals, paper specialties, and emulsions business to SK Capital Partners.

121. On information and belief, Archroma designed, manufactured, marketed, distributed, and sold PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

122. **Defendant Chemicals, Inc. (“Chemicals, Inc.”)** is a corporation organized and existing under the laws of Texas, with its principal place of business located at 12321 Hatcherville, Baytown, TX 77520.

123. On information and belief, Chemicals, Inc. supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

124. **Defendant Clariant Corporation (“Clariant”)** is a corporation organized and existing under the laws of New York, with its principal place of business at 4000 Monroe Road, Charlotte, North Carolina 28205.

125. On information and belief, Clariant is the successor in interest to the specialty chemicals business of Sandoz Chemical Corporation (“Sandoz”). On information and belief, Sandoz spun off its specialty chemicals business to form Clariant in 1995.

126. On information and belief, Clariant supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

127. **Defendant Daikin Industries, Ltd.** is a corporation organized under the laws of Japan, having its principal place of business in Osaka, Japan.

128. **Defendant Daikin America, Inc.** is a corporation organized and existing under the laws of Delaware, having its principal place of business at 20 Olympic Drive, Orangeburg, New York 10962.

129. On information and belief, Daikin America, Inc. was established in 1991 and is a subsidiary of Daikin Industries Ltd.

130. Daikin Industries, Ltd. and Daikin America, Inc. are collectively referred to herein as “Daikin.”

131. Daikin is a developer and manufacturer of fluorochemical products, including fluoropolymers, fluoroelastomers, and fluorocarbon gas.

132. On information and belief, Daikin supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

133. **Defendant Elé Corporation (“Elé Corporation”)** is a corporation organized and existing under the laws of Illinois, with its principal place of business located at 7847 West 47th Street, McCook, Illinois 60525.

134. On information and belief, Elé Corporation supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

135. **Defendant Narchem Corporation (“Narchem”)** is a corporation organized and existing under the laws of Illinois, with its principal place of business located at 2519 Pan AM Blvd, Elk Grove Village, IL 60007.

136. On information and belief, Narchem supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

137. **Defendant Nation Ford Chemical Co. (“Nation Ford”)** is a corporation organized and existing under the laws of South Carolina, with its principal place of business located at 2300 Banks Street, Fort Mill, SC 29715.

138. On information and belief, Nation Ford supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

139. **Defendant Solvay Specialty Polymers, USA, LLC (“Solvay”)** is a corporation organized and existing under the laws of Delaware, having a principal place of business at 4500 McGinnis Ferry Road, Alpharetta, GA 30005.

140. On information and belief, Solvay supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

141. On information and belief, 3M, ChemDesign, Deepwater Chemicals, and DuPont also supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

142. On information and belief, the Fluorochemical Defendants supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products that were stored, handled, used, trained with, tested equipment with, otherwise discharged, and/or disposed by Plaintiffs and the putative class members.

FACTUAL ALLEGATIONS AS TO ALL COUNTS

A. PFOA and PFOS and Their Risk to Public Health and the Environment

143. PFAS are chemical compounds containing fluorine and carbon. These substances have been used for decades in the manufacture of, among other things, household and commercial products that resist heat, stains, oil, and water. These substances are not naturally occurring and must be manufactured.

144. The two most widely studied types of these substances are PFOA and PFOS.

145. PFOA and PFOS have unique properties that cause them to be: (i) mobile and persistent, meaning that they readily spread into the environment where they break down very slowly; (ii) bioaccumulative and biomagnifying, meaning that they tend to accumulate in organisms and up the food chain; and (iii) toxic, meaning that they pose serious health risks to humans and animals.

146. PFOA and PFOS easily dissolve in water, and thus they are mobile and easily spread in the environment. PFOA and PFOS also readily contaminate soils and leach from the soil into groundwater, where they can travel significant distances.

147. PFOA and PFOS are characterized by the presence of multiple carbon-fluorine bonds, which are exceptionally strong and stable. As a result, PFOA and PFOS are thermally, chemically, and biologically stable. They resist degradation due to light, water, and biological processes.

148. Bioaccumulation occurs when an organism absorbs a substance at a rate faster than the rate at which the substance is lost by metabolism and excretion. Biomagnification occurs when the concentration of a substance in the tissues of organisms increases as the substance travels up the food chain.

149. PFOA and PFOS bioaccumulate/biomagnify in numerous ways. First, they are relatively stable once ingested, so that they bioaccumulate in individual organisms for significant periods of time. Because of this stability, any newly ingested PFOA and PFOS will be added to any PFOA and PFOS already present. In humans, PFOA and PFOS remain in the body for years.

150. PFOA and PFOS biomagnify up the food chain. This occurs, for example, when humans eat fish that have ingested PFOA and/or PFOS.

151. The chemical structure of PFOA and PFOS makes them resistant to breakdown or environmental degradation. As a result, they are persistent when released into the environment.

152. Exposure to PFAS is toxic and poses serious health risks to humans and animals. PFAS are readily absorbed after consumption, inhalation, and ingestion, and accumulate primarily in the blood stream, kidney, and liver.

B. Defendants' Manufacture and Sale of PFAS Despite Known Risks

153. AFFF is a type of water-based foam that was first developed in the 1960s to extinguish hydrocarbon fuel-based fires.

154. AFFF is a Class-B firefighting foam. It is mixed with water and used to extinguish fires that are difficult to fight, particularly those that involve petroleum or other flammable liquids.

155. AFFF is synthetically formed by combining fluorine-free hydrocarbon foaming agents with fluorosurfactants. When mixed with water, the resulting solution produces an aqueous film that spreads across the surface of hydrocarbon fuel. This film provides fire extinguishment and is the source of the designation aqueous film-forming foam.

156. Beginning in the 1960s, the AFFF Defendants designed, manufactured, marketed, distributed, and/or sold AFFF products that used fluorosurfactants containing either PFOS, PFOA, or the chemical precursors that degrade into PFOS and PFOA.

157. AFFF can be made without the fluorosurfactants that contain PFOA, PFOS, and/or their precursor chemicals. Fluorine-free firefighting foams, for instance, do not release PFOA, PFOS, and/or their precursor chemicals into the environment.

158. AFFF that contains fluorosurfactants, however, is better at extinguishing hydrocarbon fuel-based fires due to their surface-tension lowering properties, essentially smothering the fire and starving it of oxygen.

159. The fluorosurfactants used in 3M's AFFF products were manufactured by 3M's patented process of electrochemical fluorination ("ECF").

160. The fluorosurfactants used in other AFFF products sold by the AFFF Defendants were manufactured by the Fluorosurfactant Defendants through the process of telomerization.

161. The PFCs the Fluorosurfactant Defendants needed to manufacture those fluorosurfactants contained PFOS, PFOA, and/or their chemical precursors and were designed, manufactured, marketed, distributed and/or sold by the PFC Defendants.

162. On information and belief, the PFC and Fluorosurfactant Defendants were aware that the PFCs and fluorosurfactants they designed, manufactured, marketed, distributed, and/or sold would be used in the AFFF products designed, manufactured, marketed, distributed, and/or sold by the AFFF Defendants.

163. On information and belief, the PFC and Fluorosurfactant Defendants designed, manufactured, marketed, distributed, and/or sold the PFC and/or fluorosurfactants contained in the AFFF products stored, handled, used, otherwise discharged, and/or disposed by Plaintiffs and the

putative class members during fire protection, training, and response activities, resulting in widespread PFAS contamination.

164. On information and belief, the AFFF Defendants designed, manufactured, marketed, distributed, and/or sold the AFFF products stored, handled, used, otherwise discharged, and/or disposed by Plaintiffs and the putative class members during fire protection, training, and response activities, resulting in widespread PFAS contamination.

C. Defendants' Knowledge of the Threats to Public Health and the Environment Posed by PFOS and PFOA

165. In 1951, 3M began selling its PFAS to other chemical companies, including DuPont.

166. On information and belief, by at least the 1970s 3M and DuPont knew or should have known that PFOA and PFOS are mobile and persistent, bioaccumulative and biomagnifying, and toxic.

167. On information and belief, 3M and DuPont concealed from the public and government agencies its knowledge of the threats to public health and the environment posed by PFOA and PFOS.

168. Some or all of the Defendants understood how stable the fluorinated surfactants used in AFFF are when released into the environment from their first sale to a customer, yet they failed to warn their customers or provide reasonable instruction on how to manage wastes generated from their products.

i. 1940s and 1950s: Early Warnings About the Persistence of AFFF

169. In 1947, 3M started its fluorochemical program, and within four years, it began selling its PFOA to DuPont. The persistence and contaminating nature of the fluorosurfactants

contained in AFFF products were understood prior to their commercial application at 3M's Cottage Grove facility in Minnesota.

170. The inventor of 3M's ECF process was J.H. Simons. Simons' 1948 patent for the ECF process reported that PFCs are "non-corrosive, and of little chemical reactivity," and "do not react with any of the metals at ordinary temperatures and react only with the more chemically reactive metals such as sodium, at elevated temperatures."

171. Simons further reported that fluorosurfactants produced by the ECF process do not react with other compounds or reagents due to the blanket of fluorine atoms surrounding the carbon skeleton of the molecule. 3M understood that the stability of the carbon-to-fluorine bonds prevented its fluorosurfactants from undergoing further chemical reactions or degrading under natural processes in the environment.

172. The thermal stability of 3M's fluorosurfactants was also understood prior to commercial production. Simons' patent application further discloses that the fluorosurfactants produced by the ECF process were thermally stable at temperatures up to 750° C (1382° F). Additional research by 3M expanded the understanding of the thermal stability of perfluorocarbon compounds.

173. Nowhere in any Material Safety Data Sheet for any of Defendants' AFFF/Component Products is information on the thermal stability of those products disclosed. Failure to disclose knowledge of the stability of the PFCs and fluorosurfactants used in AFFF products to customers is a failure to warn just how indestructible the AFFF's ingredients are when released to unprotected water sources and even treatment plants.

ii. 1960s: AFFF's Environmental Hazards Come Into Focus

174. By at least the end of the 1960s, additional research and testing performed by 3M and DuPont indicated that fluorosurfactants, including at least PFOA, because of their unique

chemical structure, were resistant to environmental degradation and would persist in the environment essentially unaltered if allowed to enter the environment.

175. One 3M employee wrote in 1964: “This chemical stability also extends itself to all types of biological processes; there are no known biological organisms that are able to attack the carbon-fluorine bond in a fluorocarbon.” Thus, 3M knew by the mid-1960s that its surfactants were immune to chemical and biological degradation in soils and groundwater.

176. 3M also knew by 1964 that when dissolved, fluorocarbon carboxylic acids and fluorocarbon sulfonic acids dissociated to form highly stable perfluorocarboxylate and perfluorosulfonate ions. Later studies by 3M on the adsorption and mobility of FC-95 and FC-143 (the ammonium salt of PFOA) in soils indicated very high solubility and very high mobility in soils for both compounds.

iii. 1970s: Internal Studies Provide Evidence of Environmental and Health Risks

177. By 1950, 3M knew that the fluorosurfactants used in its AFFF product(s) would not degrade when released to the environment but would remain intact and persist. Two decades later—and after the establishment of a robust market of AFFFs using fluorosurfactants—3M finally got around to looking at the environmental risks that fluorosurfactants posed.

178. An internal memo from 3M in 1971 states that “the thesis that there is ‘no natural sink’ for fluorocarbons obviously demands some attention.” Hence, 3M understood at the very least that the fluorosurfactant used in its AFFF products would, in essence, never degrade once it was released into the environment.

179. By the mid-1970s, 3M and Ansul (and possibly other Defendants) had an intimate understanding of the persistent nature of PFCs. A 1976 study, for example, observed no biodegradation of FC-95, the potassium salt of PFOS; a result 3M characterized as “unsurprising”

in light of the fact that “[b]iodegradation of FC 95 is improbable because it is completely fluorinated.”

180. In 1977, Ansul authored a report titled “Environmentally Improved AFFF,” which acknowledged that releasing AFFF into the environment could pose potential negative impacts to groundwater quality. Ansul wrote: “The purpose of this work is to explore the development of experimental AFFF formulations that would exhibit reduced impact on the environment while retaining certain fire suppression characteristic . . . improvements [to AFFF formulations] are desired in the environmental area, i.e., development of compositions that have a reduced impact on the environment without loss of fire suppression effectiveness.” Thus, Ansul knew by the mid-1970s that the environmental impact of AFFF needed to be reduced, yet there is no evidence that Ansul (or any other Defendant) ever pursued initiatives to do so.

181. A 1978 3M biodegradation study likewise reported that an “extensive study strongly suggest[ed]” one of its PFCs is “likely to persist in the environment for extended period unaltered by metabolic attack.” A year later, a 3M study reported that one of its fluorosurfactants “was found to be completely resistant to biological test conditions,” and that it appeared waterways were the fluorosurfactant’s “environmental sink.”

182. In 1979, 3M also completed a comprehensive biodegradation and toxicity study covering investigations between 1975 and 1978. More than a decade after 3M began selling AFFF containing fluorosurfactants it wrote: “there has been a general lack of knowledge relative to the environmental impact of these chemicals.” The report ominously asked, “If these materials are not biodegradable, what is their fate in the environment?”

183. During the 1970s, 3M also learned that the fluorosurfactants used in AFFF accumulated in the human body and were “even more toxic” than previously believed.

184. In 1975, 3M learns that PFAS was present in the blood of the general population. Since PFOA and PFOS are not naturally occurring, this finding should have alerted 3M to the possibility that their products were a source of this PFOS. The finding also should have alerted 3M to the possibility that PFOS might be mobile, persistent, bioaccumulative, and biomagnifying, as those characteristics could explain how PFOS from 3M's products ended up in human blood.

185. In 1976, 3M found PFAS in the blood of its workers at levels “up to 1000 times ‘normal’ amounts of organically bound fluorine in their blood.” This finding should have alerted 3M to the same issues raised by the prior year’s findings.

186. Studies by 3M in 1978 showed that PFOA reduced the survival rate of fathead minnow fish eggs, that PFOS was toxic to monkeys, and that PFOS and PFOA were toxic to rats. In the study involving monkeys and PFOS, all of the monkeys died within days of ingesting food contaminated with PFOS.

187. In 1979, 3M and DuPont discussed 3M’s discovery of PFOA in the blood of its workers and came to the same conclusion that there was “no reason” to notify the EPA of the finding.

iv. 1980s and 1990s: Evidence of AFFF’s Health Risks Continues to Mount

188. By at least the end of the 1980s, additional research and testing performed by Defendants, including at least 3M and DuPont, indicated that elevated incidence of certain cancers and other adverse health effects, including elevated liver enzymes and birth defects, had been observed among workers exposed to such materials, including at least PFOA, but such data was not published, provided to governmental entities as required by law, or otherwise publicly disclosed at the time.

189. In 1981, DuPont tested for and found PFOA in the blood of female plant workers Parkersburg, West Virginia. DuPont observed and documented pregnancy outcomes in exposed

workers, finding two of seven children born to female plant workers between 1979 and 1981 had birth defects—one an “unconfirmed” eye and tear duct defect, and one a nostril and eye defect.

190. In 1983, 3M researchers concluded that concerns about PFAS “give rise to concern for environmental safety,” including “legitimate questions about the persistence, accumulation potential, and ecotoxicity of fluorochemicals in the environment.” That same year, 3M completed a study finding that PFOS caused the growth of cancerous tumors in rats. This finding was later shared with DuPont and led them to consider whether “they may be obliged under their policy to call FC-143 a carcinogen in animals.”

191. In 1984, 3M documented a trend of increasing levels of PFOS in the bodies of 3M workers, leading one of the company’s medical officers to warn in an internal memo: “we must view this present trend with serious concern. It is certainly possible that . . . exposure opportunities are providing a potential uptake of fluorochemicals that exceeds excretion capabilities of the body.”

192. A 1997 material safety data sheet (“MSDS”) for a non-AFFF product made by 3M listed its only ingredients as water, PFOA, and other perfluoroalkyl substances and warned that the product includes “a chemical which can cause cancer.” The MSDS cited “1983 and 1993 studies conducted jointly by 3M and DuPont” as support for this statement. On information and belief, the MSDS for 3M’s AFFF products did not provide similar warnings or information.

v. Defendants Hid What They Knew from the Government and the Public

193. Federal law requires chemical manufacturers and distributors to immediately notify the EPA if they have information that “reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment.” Toxic Substances Control Act (“TSCA”) § 8(e), 15 U.S.C. § 2607(e)

194. In April 2006, 3M agreed to pay EPA a penalty of more than \$1.5 million after being cited for 244 violations of the TSCA, which included violations for failing to disclose studies regarding PFOS, PFOA, and other PFCs dating back decades.

195. Likewise, in December 2005, the EPA announced it was imposing the “Largest Environmental Administrative Penalty in Agency History” against DuPont based on evidence that it violated the TSCA by concealing the environmental and health effects of PFOA.

196. On information and belief, Defendants knew or should have known that AFFF containing PFOA or PFOS would very likely injure and/or threaten public health and the environment, even when used as intended or directed.

197. Defendants failed to warn of these risks to the environment and public health, including the impact of their AFFF/Component Products on the quality of unprotected water sources.

198. Defendants were all sophisticated and knowledgeable in the art and science of designing, formulating, and manufacturing AFFF/Component Products. They understood far more about the properties of their AFFF/Component Products—including the potential hazards they posed to human health and the environment—than any of their customers. Still, Defendants declined to use their sophistication and knowledge to design safer products.

D. The Impact of PFOS and PFOA on the Environment and Human Health Is Finally Revealed

199. As discussed above, neither 3M, DuPont, nor, on information and belief, any other Defendant complied with their obligations to notify EPA about the “substantial risk of injury to health or the environment” posed by their AFFF/Component Products. See TSCA § 8(e).

200. Despite decades of research, 3M first shared its concerns with EPA in the late 1990s. In a May 1998 report submitted to EPA, “3M chose to report simply that PFOS had been

found in the blood of animals, which is true but omits the most significant information,” according to a former 3M employee.

201. On information and belief, 3M began in 2000 to phase out its production of products that contained PFOS and PFOA in response to pressure from the EPA.

202. Once the truth about PFOS and PFOA was revealed, researchers began to study the environmental and health effects associated with them, including a “C8 Science Panel” formed out of a class action settlement arising from contamination from DuPont’s Washington Works located in Wood County, West Virginia.

203. The C8 panel consisted of three epidemiologists specifically tasked with determining whether there was a probable link between PFOA exposure and human diseases. In 2012, the panel found probable links between PFOA and kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy-induced hypertension (including preeclampsia), and hypercholesterolemia.

204. Human health effects associated with PFOS exposure include immune system effects, changes in liver enzymes and thyroid hormones, low birth weight, high uric acid, and high cholesterol. In laboratory testing on animals, PFOA and PFOS have caused the growth of tumors, changed hormone levels, and affected the function of the liver, thyroid, pancreas, and immune system.

205. The injuries caused by PFAS can arise months or years after exposure.

206. Even after the C8 Science Panel publicly announced that human exposure to 50 parts per trillion, or more, of PFOA in drinking water for one year or longer had “probable links” with certain human diseases, including kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, preeclampsia, and medically-diagnosed high cholesterol, Defendants repeatedly assured

and represented to governmental entities, their customers, and the public (and continue to do so) that the presence of PFOA in human blood at the levels found within the United States presents no risk of harm and is of no legal, toxicological, or medical significance of any kind.

207. Furthermore, Defendants have represented to and assured such governmental entities, their customers, and the public (and continue to do so) that the work of the independent C8 Science Panel was inadequate to satisfy the standards of Defendants to prove such adverse effects upon and/or any risk to humans with respect to PFOA in human blood.

208. At all relevant times, Defendants, through their acts and/or omissions, controlled, minimized, trivialized, manipulated, and/or otherwise influenced the information that was published in peer-review journals, released by any governmental entity, and/or otherwise made available to the public relating to PFAS in human blood and any alleged adverse impacts and/or risks associated therewith, effectively preventing the public from discovering the existence and extent of any injuries/harm as alleged herein.

209. On May 2, 2012, the EPA published its Third Unregulated Contaminant Monitoring Rule (“UCMR3”), requiring public water systems nationwide to monitor for thirty contaminants of concern between 2013 and 2015, including PFOS and PFOA.

210. In the May 2015 “Madrid Statement on Poly- and Perfluoroalkyl Substances (PFAS’s),” scientists and other professionals from a variety of disciplines, concerned about the production and release into the environment of PFOA, called for greater regulation, restrictions, limits on the manufacture and handling of any PFOA containing product, and to develop safe non-fluorinated alternatives to these products to avoid long-term harm to human health and the environment.

211. On May 25, 2016, the EPA released a lifetime health advisory (“HAS”) and health effects support documents for PFOS and PFOA. See Fed. Register, Vol. 81, No. 101, May 25, 2016. The EPA developed the HAS to assist governmental officials in protecting public health when PFOS and PFOA are present in drinking water. The EPA HAS identified the concentration of PFOS and PFOA in drinking water at or below which adverse health effects are not anticipated to occur over a lifetime of exposure at 0.07 ppb or 70 ppt. The HAS were based on peer-reviewed studies of the effects of PFOS and PFOA on laboratory animals (rats and mice) and were also informed by epidemiological studies of human populations exposed to PFOS. These studies indicate that exposure to PFOS and PFOA over these levels may result in adverse health effects, including:

- a. Developmental effects to fetuses during pregnancy or to breastfed infants (*e.g.*, low birth weight, accelerated puberty, skeletal variations);
- b. Cancer (testicular and kidney);
- c. Liver effects (tissue damage);
- d. Immune effects (*e.g.*, antibody production, immunity, and ulcerative colitis); and
- e. Thyroid disease and other effects (*e.g.*, cholesterol changes).

212. In addition, PFOS and PFOA are hazardous materials because they pose a “present or potential threat to human health.”

213. In 2016, the National Toxicology Program of the United States Department of Health and Human Services (“NTP”) and the International Agency for Research on Cancer (“IARC”) both released extensive analyses of the expanding body of research regarding the adverse effects of PFCs. The NTP concluded that both PFOA and PFOS are “presumed to be an immune hazard to humans” based on a “consistent pattern of findings” of adverse immune effects

in human (epidemiology) studies and “high confidence” that PFOA and PFOS exposure was associated with suppression of immune responses in animal (toxicology) studies.

214. IARC similarly concluded that there is “evidence” of “the carcinogenicity of . . . PFOA” in humans and in experimental animals, meaning that “[a] positive association has been observed between exposure to the agent and cancer for which a causal interpretation is . . . credible.”

215. California has listed PFOA and PFOS to its Proposition 65 list as a chemical known to cause reproductive toxicity under the Safe Drinking Water and Toxic Enforcement Act of 1986.

216. The United States Senate and House of Representatives passed the National Defense Authorization Act in November 2017, which included \$42 Million to remediate PFC contamination from military bases, as well as devoting \$7 Million toward the Investing in Testing Act, which authorizes the Center for Disease Control and Prevention (“CDC”) to conduct a study into the long-term health effects of PFOA and PFOS exposure. The legislation also required that the Department of Defense submit a report on the status of developing a new military specification for AFFF that did not contain PFOS or PFOA.

217. In June 2018, the Agency for Toxic Substances and Disease Registry (“ATSDR”) and EPA released a draft toxicological profile for PFOS and PFOA and recommended the drinking water advisory levels be lowered to 11 ppt for PFOA and 7 ppt for PFOS.

218. On December 27, 2019, MassDEP adopted a current and potential drinking water source area PFAS standard at 20 parts per trillion (ppt) for the sum of 5 PFAS compounds (PFDA, PFHpA, PFHxS, PFOA, and PFOS) as well as PFNA (perfluorononanoic acid).

219. On February 20, 2020, the EPA announced a proposed decision to regulate PFOA and PFOS under the Safe Drinking Water Act, which the agency characterized as a “key milestone”

in its efforts to “help communities address per- and polyfluoroalkyl substances (PFAS) nationwide.” Following a public comment period on its proposed decision, the EPA will decide whether to move forward with the process of establishing a national primary drinking water regulation for PFOA and PFOS.

E. AFFF Containing PFOS and PFOA Is Fungible and Commingled in the Groundwater

220. Once it has been released into the environment, AFFF containing PFOS, PFOA, and/or their chemical precursors lacks characteristics that would enable identification of the company that manufactured that particular batch of AFFF or chemical feedstock.

221. A subsurface plume, even if it comes from a single location, such as a retention pond or fire training area, originates from mixed batches of AFFF and chemical feedstock coming from different manufacturers.

222. Because precise identification of the specific manufacturer of any given AFFF/Component Product that was a source of PFAS exposure for Plaintiffs and the putative class members is nearly impossible, given certain exceptions, Plaintiffs must pursue all Defendants, jointly and severally.

223. Defendants are also jointly and severally liable because they conspired to conceal the true toxic nature of PFOS and PFOA, to profit from the use of AFFF/Component Products containing PFOS and PFOA, at Plaintiffs’ and the putative class members’ expense, and to attempt to avoid liability.

F. Plaintiffs’ and Putative Class Members’ Use of AFFF and Exposure to PFAS/AFFF Usage and Resulting PFOS and PFOA Contamination in New York State

224. For decades, Defendants’ AFFF/Component Products were expected to and did in fact reach fire departments and fire training centers across the State of New York through the

stream of commerce and without substantial change to the condition in which Defendants distributed and/or sold those products.

225. As a result, Defendants' AFFF/Component Products were used in their intended manner by Plaintiffs and other firefighters throughout the State of New York during fire protection, training, and response activities.

226. Due to these activities, AFFF was released into the surrounding air, soil, and groundwater at locations including but not limited to fire departments and fire training centers, causing PFAS contamination of water supplies in the surrounding areas.

227. On information and belief, these activities also led to hundreds—and potentially thousands—of firefighters like Plaintiffs being exposed to elevated levels of PFAS as a direct and proximate result of their use, consumption, inhalation, ingestion, and/or dermal absorption of Defendants' AFFF/Component Products. Indeed, the Firemen's Association of the State of New York currently has 45,000 members, the New York State Association of Fire Chiefs has over 10,000 members, the New York State Professional Fire Fighters Association has 18,000 members, and the Uniformed Firefighters Association has 25,000 members.

228. Plaintiffs' and the putative class members' unknowing exposure to elevated levels of PFAS has resulted in injury that is a direct and proximate result of Defendants' tortious conduct described above.

229. Plaintiffs, individually and on behalf of other similarly situated current and former firefighters in the State of New York, seek recovery from Defendants for the injuries, damages, and losses they have suffered as a direct and proximate result of their exposure to PFAS arising from their use, consumption, inhalation, ingestion, and/or dermal absorption of Defendants'

AFFF/Component Products, in an amount to be determined at trial, exclusive of interest, costs, and attorney's fees.

230. Considering that (1) the long-term health effects of exposure to PFAS have not been exhaustively studied, (2) the studies that have been done provide compelling evidence that serious health effects result from exposure to certain PFAS, including but not limited to PFOA and PFOS, and (3) the latency of such effects has not yet been fully determined, periodic diagnostic medical exams for populations exposed to elevated levels of PFAS are reasonably necessary.

231. Because Plaintiffs are at substantially increased risk of serious health conditions due to their exposure to PFAS described herein, periodic medical examinations by qualified licensed medical professionals are both reasonable and necessary to permit early detection of latent health conditions in Plaintiffs and the putative class members.

CLASS ACTION ALLEGATIONS

232. Plaintiffs incorporate the preceding paragraphs as though the same were forth at length herein.

233. Plaintiffs, individually and on behalf of other similarly situated, current and former firefighters in the State of New York, bring this action seeking to recover damages for injuries to their person and for medical monitoring caused by exposure to increased levels of PFAS as a direct and proximate result of their use, consumption, ingestion, inhalation, and/or dermal absorption of Defendants' AFFF Component Products and/or from exposure to PFAS in the course of working with AFFF products that were manufactured, designed, sold, supplied and/or distributed by each of the above-named Defendants.

234. Plaintiffs seek to certify and maintain this action under Federal Rule of Civil Procedure 23(a), (b)(1) and/or (b)(2), and (b)(3) on behalf of two classes (collectively, the "Class")

of similarly-situated current and former firefighters (the “Class Members”), subject to amendment and additional discovery, as follows:

- a. **PFOS and/or PFOA Injury Class** (the “Injury Class”): All individuals currently or formerly employed as firefighters and/or as firefighting instructors or trainees in the State of New York that sustained bioaccumulation of PFOS and/or PFOA in their bodies and who have suffered personal injury as a result of their frequent contact, proximity to, use, and/or handling of Defendants’ AFFF/Component Products.
- b. **Medical Monitoring Class** (the “Monitoring Class”): All individuals currently or formerly employed as firefighters and/or as firefighting instructors or trainees in the State of New York who have sustained bioaccumulation of PFOS and/or PFOA in their bodies.

235. The Class has more than 100 members, as required under the Class Action Fairness Act, 28 U.S.C. § 1332(d).

236. Plaintiffs are members of both proposed Classes they seek to represent. This action satisfies the numerosity, commonality, typicality, adequacy, predominance, and superiority requirements of Rule 23 of the Federal Rules of Civil Procedure, *supra*.

237. Plaintiffs O’Keefe and McGarry are members of and seek to represent both the Injury Class and the Monitoring Class. Plaintiff Gentile is a member of and seeks to represent the Monitoring Class.

238. Excluded from the Class are:

- a. Defendants, including any entity or division in which Defendants have a controlling interest, along with their legal representative, employees, officers, directors, assigns, heirs, successors, and wholly or partly owned subsidiaries or affiliates;
- b. the Judge to whom this case is assigned, the Judge’s staff, and the Judge’s immediate family;
- c. any class counsel or their immediate family members; and
- d. all governmental entities.

239. Plaintiffs reserve the right to amend the Class definition if discovery and further investigation reveal that any Class should be expanded, divided into additional subclasses, or modified in any other way.

A. Numerosity and Ascertainability

240. This action meets the numerosity requirement of Fed. R. Civ. P. 23(a)(1), given that the number of impacted individuals, upon information and belief, is certainly in the hundreds and is potentially in the thousands, making individual joinder of class members' respective claims impracticable. While the exact number of class members is not yet known, a precise number can be ascertained from U.S. Federal Census records, the State of New York, the public records of the municipal entities, and through other appropriate discovery.

241. The resolution of the claims of the class members in a single action will provide substantial benefits to all parties and the Court. It is expected that the Class Members will number in the hundreds and could potentially be in the thousands.

242. Finally, Class members can be notified of the pendency of this action by Court-approved notice methods.

B. Typicality

243. Pursuant to Federal Rule of Civil Procedure 23(a)(3), Plaintiffs' claims are typical of the claims of Class Members and arise from the same course of conduct by Defendants.

244. Plaintiffs' persons, like all Class Members, have been damaged by Defendants' misconduct in that they have incurred damages and losses related to exposure to PFAS while working as firefighters in New York, causing personal injury damages.

245. Furthermore, the facts and circumstances surrounding Defendants' actions and misconduct are common to all Class Members and represent a common thread of misconduct

resulting in common injury to all Class Members. The relief Plaintiffs seek is typical of the relief sought for absent Class Members.

246. While the degree of exposure may differ across Class Members, factual inconsistencies between the class members are not enough to defeat typicality. Since the named Plaintiffs assert claims reflective of those of Class Members, the factor of typicality is satisfied.

C. Adequacy of Representation

247. Plaintiffs will serve as fair and adequate class representatives because their interests, as well as the interests of their counsel, do not conflict with the interests of other members of the class they seek to represent.

248. Plaintiffs have retained counsel competent and well experienced in class action and environmental tort litigation.

249. Plaintiffs and their counsel are committed to vigorously prosecuting this action on behalf of the Class and have the financial resources to do so. Neither the Plaintiffs nor their counsel have interests adverse to the Class.

D. Predominance of Common Issues

250. There are numerous questions of law and fact common to Plaintiffs and Class Members that predominate over any question affecting only individual Class Members, making it appropriate to bring this action under Rule 23(b)(3).

251. The basis for all of Class Members' claims is Defendants' course of conduct and knowledge of the potential hazards of AFFF containing PFOS, PFOA, and/or their precursors. All Class Members suffered a common injury: exposure to increased levels of PFAS while working as firefighters in the State of New York. Further, the method of contamination that led to this common injury is uniform: use, consumption, ingestion, inhalation, and/or dermal absorption of

Defendants' AFFF Component Products. Thus, each of the Class Members' injuries was caused by a common course of conduct undertaken by Defendants.

252. Plaintiffs' claims arise from the same course of conduct giving rise to the claims of the Class Members, meaning the entire matter of Defendants' liability in this case can be adjudicated on a class basis to avoid a waste of judicial resources and inconsistent judgements.

253. The answers to these common questions will advance resolution of the litigation as to all Class Members. Common legal and factual issues include:

- a. Whether Defendants engaged in the conduct alleged herein;
- b. Whether Defendants knew or should have known that exposure to PFOS, PFOA, and/or their chemical precursors could increase health risks;
- c. Whether Defendants knew or should have known that their manufacture of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors was unreasonably dangerous;
- d. Whether Defendants knew or should have known that their AFFF/Component Products contained persistent, stable, and mobile chemicals that were likely cause contamination;
- e. Whether Defendants failed to sufficiently warn users of the potential for harm that resulted from use of their AFFF/Component Products;
- f. Whether Defendants became aware of health and environmental harm caused by their AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, and failed to warn users, Plaintiffs, and the Class Members;
- g. The extent to which Defendants knew about PFAS contamination that occurred as a result of firefighters' use of their AFFF/Component Products in the State of New

York, including but not limited to contamination of the firefighters' protective gear and contamination that occurred in the areas surrounding fire departments in New York;

- h. The extent to which Defendants knew about PFAS contamination of the water supplied to firefighters at their place of work;
- i. Whether the Defendants owed Plaintiffs and the Class Members a duty to refrain from the actions that caused their exposure to increased levels of PFAS.
- j. Whether Defendants made unlawful and misleading representations or material omissions with respect to the health impacts of PFAS;
- k. Whether the risk of any health issue or bodily injury of Plaintiffs and the Monitoring Class Members is attributable to their exposure to PFAS as a result of their employment as firefighters in New York;
- l. Whether Plaintiffs Gentile and McGarry and the Injury Class Members have suffered personal injuries caused by their exposure to PFAS while employed as firefighters in the State of New York;
- m. Whether Plaintiffs and the Class Members are entitled to damages and other monetary relief and other equitable relief, including but not limited to punitive damages, and if so, in what amount.
- n. Whether Plaintiffs and the Class Members have sustained damages and the proper measure of damages;
- o. Whether Defendants are strictly liable to Plaintiffs and the Class Members for their actions; and

- p. Whether Defendants were unjustly enriched by their actions at the expense of Plaintiffs and the Class Members.

254. While damages may vary amongst Injury Class Members, individualized damages inquiries do not obviate the utility of the class mechanism for this action, given the predominant common issues of injury, causation, and liability.

E. Superiority

255. The class action mechanism is superior to any other available means of the fair and efficient adjudication of this case. Further, no unusual difficulties are likely to be encountered in the management of this class action. Given the great number of firefighters in the State of New York who used and/or were impacted by Defendants' AFFF/Component Products, it is impracticable for Plaintiffs and the Class Members to individually litigate their respective claims, as doing so would risk inconsistent judgments and the potential for increased delays and expense for the parties and the court system. Therefore, the class action mechanism presents considerably less management challenges and provides the efficiency of a single adjudication overseen by a single court.

**MARKET SHARE LIABILITY, ALTERNATIVE LIABILITY,
CONCERT OF ACTION, AND ENTERPRISE LIABILITY**

256. Defendants in this action are manufacturers that control a substantial share of the market for AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors in the United States and are jointly responsible for Plaintiffs' and the Class Members' exposure to increased levels of PFAS and the injuries they have suffered as a result. Market share liability attaches to all Defendants and the liability of each should be assigned according to its percentage of the market for AFFF/Component Products at issue in this Complaint.

257. Because PFAS is fungible, it is impossible to identify the exact Defendant who manufactured any given AFFF/Component Product containing PFOS, PFOA, and/or their chemical precursors that caused Plaintiffs' and the Class Members' injuries, and, each of these Defendants participated in a state-wide and national market for AFFF containing PFOA and/or PFOS during the relevant time.

258. Concert of action liability attaches to all Defendants, each of which participated in a common plan to commit the torts alleged herein and each of which acted tortuously in pursuance of the common plan to knowingly manufacture and sell inherently dangerous AFFF/Component Products containing PFOS, PFOA and/or their chemical precursors.

259. Enterprise liability attaches to all the named Defendants for casting defective products into the stream of commerce.

CONSPIRACY BETWEEN DEFENDANTS

260. Defendants actually knew of the health hazards that PFAS posed to Plaintiffs and the Class Members.

261. Beginning in the 1970's and continuing through the date of this Complaint, Defendants formed joint task forces and committees and otherwise colluded for the avowed purpose of providing information about their AFFF/Component Products to the public and to government agencies, but with the true, unlawful purpose of:

- i. Creating a market for AFFF products that contained PFOS, PFOA, and/or their chemical precursors despite knowledge of the health hazards PFAS posed to firefighters who used those products in the State of New York;
- ii. Concealing the environmental properties and toxic nature of PFAS, and its impact on the health of Plaintiffs and the Class Members; and
- iii. Maximizing profits in a way Defendants knew would require them to expose Plaintiffs and the Class Members to PFAS that could be hazardous to their health.

262. Defendants carried out this conspiracy by committing one or more of the following overt acts or omissions:

- i. Intentionally representing to the public that their AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors were safe and did not pose a significant risk to the environmental or human health;
- ii. Concealing the dangers of PFAS from the government and the public (including but not limited to toxicological information on the dangers of PFAS to living organisms, information about the adverse fate and transport characteristics of PFAS, and the propensity of PFAS to contaminate groundwater) by, among other means, repeatedly requesting that information about the dangers of PFAS be suppressed and by downplaying any adverse findings that did become public;
- iii. Concealing the dangers of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors from end users and other interested parties;
- iv. Using their considerable resources to fight regulation of PFAS and products containing PFAS; and
- v. Collectively deciding to use PFOS, PFOA, and/or their chemical precursors rather than alternative compounds that were safer because AFFF/Component Products containing PFOS, PFOA, and/or chemical precursors was more profitable.

263. As a direct and proximate result of this conspiracy undertaken by Defendants, Plaintiffs and the Class Members were exposed to increased levels of PFAS that:

- i. Posed and continue to pose a health threat to Plaintiffs and the Class Members because it has bioaccumulated in their bodies; and
- ii. Will require testing and monitoring of Plaintiffs' health for known adverse health effects.

FIRST CAUSE OF ACTION:
NEGLIGENCE

264. Plaintiffs hereby repeat, reallege, and reiterate each allegation in the preceding paragraphs as if fully restated herein.

265. As manufacturers, marketers, and sellers of AFFF/Component Products, Defendants owed a duty to Plaintiffs, the Class Members, and all persons whom its products might

foreseeably harm and to exercise due care in the formulation, manufacture, sale, labeling, warning, and the use of PFAS-containing AFFF.

266. Defendants owed a duty to Plaintiff to act reasonably and not place inherently dangerous AFFF/Component Products into the marketplace when its release of PFAS into air, soil, and water was imminent and certain.

267. Defendants' knew their AFFF/Component Products were unreasonably dangerous for their reasonably anticipated use because exposure to increased levels of PFAS poses a significant threat to human health.

268. Defendants knew or should have known that PFAS were leaching from AFFF used for fire protection, training, and response activities.

269. Defendants knew or should have known that the manner in which they were manufacturing, marketing, and selling their AFFF/Component Products would result in Plaintiffs and the Class Members being exposed to increased levels of PFAS.

270. Despite the fact that Defendants knew that PFAS are toxic, can contaminate water resources and are carcinogenic, Defendants negligently:

- a. designed, manufactured, formulated, handled, labeled, instructed, controlled, marketed, promoted, and/or sold AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors;
- b. issued deficient instructions on how their AFFF/Component Products should be used and disposed of, thereby permitting Plaintiffs and the Class Members to be exposed to increased levels of PFAS;

- c. failed to recall and/or warn Plaintiffs and the Class Members of the dangers of their AFFF/Component Products as a result of standard use and disposal of their products; and
- d. failed to take reasonable, adequate, and sufficient steps or actions to eliminate, correct, or remedy any contamination after it occurred.

271. The magnitude of the burden on the Defendants to guard against this foreseeable harm to Plaintiffs and the Class Members was minimal, as the practical consequences of placing this burden on the Defendants amounted to a burden to provide adequate instructions, proper labeling, and sufficient warnings about their AFFF/Component Products.

272. As manufacturers, Defendants were in the best position to provide adequate instructions, proper labeling, and sufficient warnings about their AFFF/Component Products, and to take steps to eliminate, correct, or remedy any exposure or contamination they caused.

273. As a direct and proximate result of Defendants' negligence, Plaintiffs and the Class Members have suffered, and continue to suffer, injuries entitling them to damages and monitoring costs in an amount to be determined at trial.

274. Defendants knew that it was substantially certain that their acts and omissions described above would threaten the health of uses of their AFFF/Component Products like Plaintiffs and the Class Members. Defendants committed each of the above-described acts and omissions knowingly, willfully, and/or with fraud, oppression, or malice, and with conscious and/or reckless disregard for the health and safety of Plaintiffs and the Class Members.

SECOND CAUSE OF ACTION:
PRODUCTS LIABILITY – FAILURE TO WARN

275. Plaintiffs hereby repeat, reallege, and reiterate each and every allegation in the preceding paragraphs as if fully set forth herein.

276. At all times material, the Defendants manufactured, designed, formulated, marketed, tested, promoted, supplied, sold, and/or distributed their AFFF/Component Products in the regular course of business.

277. As a manufacturer of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, Defendants had a duty to provide adequate warnings of the risks of these products to all persons whom its product might foreseeably harm, including Plaintiffs and the Class Members.

278. Defendants' AFFF/Component Products were unreasonably dangerous for their reasonably anticipated use because exposure to increased levels of PFAS poses a significant threat to human health.

279. Defendants knew of the health risks associated with their AFFF/Component Products and failed to provide a warning that would lead an ordinary reasonable user or handler of a product to contemplate the danger to human health associated with those products.

280. Despite Defendants' knowledge of the human health hazards associated with the use and/or disposal of their AFFF/Component Products, Defendants failed to issue any warnings, instructions, recalls, or advice regarding those products to Plaintiffs, the Class Members, governmental agencies, or the public.

281. Plaintiffs and the Class Members would have heeded legally adequate warnings and would not have used Defendants' AFFF/Component Products or would have taken steps to ensure such products were used and disposed of differently to prevent potential exposure and/or contamination.

282. As a direct and proximate result of Defendants' failure to warn, Plaintiffs and the Class Members have suffered, and continue to suffer, injuries entitling them to damages and monitoring costs in an amount to be determined at trial.

283. Defendants knew that it was substantially certain that their acts and omissions described above would threaten the health of uses of their AFFF/Component Products like Plaintiffs and the Class Members. Defendants committed each of the above-described acts and omissions knowingly, willfully, and/or with fraud, oppression, or malice, and with conscious and/or reckless disregard for the health and safety of Plaintiffs and the Class Members.

THIRD CAUSE OF ACTION:
PRODUCTS LIABILITY – DEFECTIVE DESIGN

284. Plaintiffs hereby repeat, reallege, and reiterate each and every allegation in the preceding paragraphs as if fully set forth herein.

285. At all times material, the Defendants manufactured, designed, formulated, marketed, tested, promoted, supplied, sold, and/or distributed their AFFF/Component Products in the regular course of business.

286. As manufacturers, Defendants owed a duty to all persons whom its products might foreseeably harm, including Plaintiffs and the Class Members, not to market any product that unreasonably dangerous in design for its reasonably anticipated use.

287. Defendants' knew their AFFF/Component Products were unreasonably dangerous for their reasonably anticipated use because exposure to increased levels of PFAS poses a significant threat to human health.

288. Defendants knew of these risks and failed to use reasonable care in the design of their AFFF/Component Products.

289. AFFF containing PFOS, PFOA, and/or their chemical precursors poses a greater danger to human health than would be expected by ordinary persons such as Plaintiffs and the Class Members.

290. At all times, Defendants were capable of making AFFF/Component Products that did not contain PFOS, PFOA, and/or their chemical precursors. Thus, reasonable alternative designs existed which were capable of preventing Plaintiffs' and the Class Members' injuries.

291. The risks posed by AFFF containing PFOS, PFOA, and/or their chemical precursors far outweigh the products' utility as a flame-control product.

292. The likelihood that Defendants' AFFF/Component Products would expose Plaintiffs and the Class Members to substantial health risks, as well as the gravity of those risks, far outweighed any burden on Defendants to adopt an alternative design and any corresponding adverse effect, if any, of such alternative design on the utility of the product.

293. As a direct and proximate result of Defendants' unreasonably dangerous design, manufacture, and sale of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, Plaintiffs and the Class Members have suffered, and continue to suffer, injuries entitling them to damages and monitoring costs in an amount to be determined at trial.

294. Defendants knew that it was substantially certain that their acts and omissions described above would threaten the health of uses of their AFFF/Component Products like Plaintiffs and the Class Members. Defendants committed each of the above-described acts and omissions knowingly, willfully, and/or with fraud, oppression, or malice, and with conscious and/or reckless disregard for the health and safety of Plaintiffs and the Class Members.

**FOURTH CAUSE OF ACTION:
MEDICAL MONITORING**

295. Plaintiffs hereby repeat, reallege, and reiterate each and every allegation in the preceding paragraphs as if fully restated herein.

296. Medical monitoring is available to Plaintiff O’Keefe and the Monitoring Class Members, all of whom have yet to sustain a present injury as a stand-alone cause of action, because the increased risk of developing the diseases and conditions discussed herein constitute an injury-in-fact. Medical monitoring is also an element of the damages sought by Plaintiff Gentile, Plaintiff McGarry, and all other Class Members who have sustained a present injury but remain at an increased risk for other serious health conditions associated with PFAS exposure.

297. Plaintiffs and the Monitoring Class Members seek consequential damages sufficient to fund a medical monitoring program that is reasonably tailored to the exposure risks of the contaminants released by Defendants’ AFFF/Component Products, including but not limited to PFOS, PFOA, and/or their chemical precursors.

298. Defendants knew or should have known that exposure to PFAS was hazardous to human health.

299. Defendants knew or should have known that the manner in which they were manufacturing, marketing, and selling their AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors would result in Plaintiffs and the Monitoring Class Members being exposed to increased levels of PFAS.

300. Defendants continued negligent acts and omissions in manufacturing, marketing, and selling their AFFF/Component Products were the proximate cause of excessive exposure to PFAS on behalf of Plaintiffs and the Monitoring Class Members.

301. The resulting exposure significantly increased the risk of Plaintiffs and the Monitoring Class Members contracting serious health conditions, including but not limited to kidney cancer,

testicular cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia), hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

302. Plaintiffs have also experienced fear and anxiety as a result of their increased risk of contracting the aforementioned conditions, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia), hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

303. The significantly increased health risks associated with exposure to PFOS, PFOA, and/or their chemical precursors make periodic diagnostic medical examinations reasonable and necessary.

304. Plaintiffs and the Monitoring Class Members will incur future expenses for medical monitoring and, as a result, seek payment of their related medical expenses as an element of the damages they are entitled to from Defendants.

305. In order to compensate Plaintiffs and the Monitoring Class Members for damages suffered due to Defendants' acts, they require, among other things, that Defendants collectively pay the past and future costs of obtaining necessary medical care, toxicological examinations and diagnoses, and any other medical monitoring necessary to ascertain and treat any current or future injuries suffered as a result of their exposure to PFAS, with Plaintiffs and the Monitoring Class Members retaining the freedom to choose their medical providers. Many of these costs would not be covered by health care insurers, and if covered, may unfairly result in increased premiums.

306. The increased susceptibility to certain injuries and irreparable threat to future health and well-being Plaintiffs and the Monitoring Class Members face as a result of their exposure to increased levels of PFAS can only be mitigated and/or addressed by the creation of a medical monitoring program (the "Medical Monitoring Program") that includes but is not limited to:

- a. Establishing a program that provides education and outreach on the existence and availability of the services established under the Medical Monitoring Program, including but not limited to the establishment of a public website with information about the Medical Monitoring Program, meetings with potentially eligible members, development and dissemination of outreach materials informing current and former firefighters in the State of New York about the program, and the establishment of phone information services;
 - b. Funding additional studies of the long-term effects of exposure to PFOS, PFOA, and/or their chemical precursors;
 - c. Funding medical surveillance for current and former firefighters in the State of New York who were exposed to PFAS as a result of their use, handling, and/or disposal of Defendants' AFFF/Component Products;
 - d. Funding research into possible treatments for the detrimental effects of PFAS exposure suffered by Plaintiffs' and the Monitoring Class Members' as a result of the acts and omissions alleged here;
 - e. Gathering and forwarding to the treating physician of Plaintiffs and each Monitoring Class Member information related to the diagnosis and treatment of injuries resulting from their exposure to PFAS; and
 - f. Assisting in the early diagnosis and treatment of injuries resulting from exposure to PFAS through ongoing testing and monitoring of Plaintiffs and each Monitoring Class Member.
316. Prescribed monitoring procedures exist that make the early detection of these diseases possible.

317. These monitoring procedures or regimes are different from normally recommended procedures that would be used in the absence of the exposure.

318. The prescribed medical surveillance is reasonably necessary according to contemporary scientific principals for persons such as Plaintiffs and the Monitoring Class Members who have been exposed and continue to be exposed to excessive levels of PFAS.

319. Plaintiffs and the Monitoring Class Members will suffer irreparable harm if the Medical Monitoring Program is not implemented because they are in danger of suffering serious health conditions as a result of their prolonged exposure to the contaminants described herein.

320. Detection of these diseases and early treatment is medically reasonable and necessary to prevent additional injury and/or injury progression.

321. It is also medically reasonable and necessary to collect data and coordinate study efforts for persons exposed to such substances in order to effectively treat Plaintiffs and the Monitoring Class Members.

322. Establishment of the Medical Monitoring Program is an essential part of the consequential damages for Plaintiffs' and the Monitoring Class Members' exposure to PFAS because without said program, they will be subjected to additional injury and/or injury progression.

323. Plaintiffs request that the Court appoint a plan administrator, require the Defendants to fund the medical monitoring plan, and reserve jurisdiction to enforce the terms and conditions of the Medical Monitoring Program.

324. Accordingly, Plaintiffs and the Medical Monitoring Class Members are entitled to a medical monitoring program that provides for medical testing, surveillance, monitoring, and study of Plaintiffs and the Medical Monitoring Class Members for conditions associated with exposure to

the contaminants described herein, as well as payment of their attorney's fees and expenses, and any other relief this court deems just and proper.

CLAIM FOR PUNITIVE DAMAGES

325. Plaintiff hereby repeats, realleges, and reiterates each allegation in the preceding paragraphs as if fully restated herein.

326. At all times relevant, Defendants manufactured, marketed, and sold AFFF/Component Products used by Plaintiffs and the Class Members in the course of their employment as firefighters in the State of New York.

327. Defendants knew that it was substantially certain that their acts and omissions described above would threaten the health of uses of their AFFF/Component Products like Plaintiffs and the Class Members.

328. Defendants' negligent, reckless, willful, and/or wanton actions and/or intentional failures to act caused Plaintiffs and the Class Members to be exposed to an unknown quantity of PFAS.

329. The willful, wanton, malicious, and/or reckless conduct of Defendants, includes, but is not limited to:

- a. issuing no warnings and failing to divulge material information concerning exposure to or release of PFAS, including but not limited to PFOA and PFOS;
- b. knowing there was a high probability that use of their products would result in exposure to increased levels of PFAS;
- c. failing to take all reasonable measures to ensure their AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors would be safely and effectively used and/or disposed of; and

- d. failing to prevent the foreseeable impact of PFAS exposure on the health of Plaintiffs and the Class Members.

330. As a result of Defendants' conduct, Plaintiffs and the Class Members have either developed or are at an increased risk of developing serious health conditions that include but are not limited to kidney cancer, testicular cancer ulcerative colitis, thyroid disease, liver dysfunction, pregnancy induced hypertension (including preeclampsia), hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

331. Defendants have acted with implied malice and demonstrated an outrageous conscious disregard for the health and safety of Plaintiffs and the Class Members, warranting the imposition of punitive damages.

PRAYER FOR RELIEF

WHEREFORE, the Plaintiffs and the Class demand judgment against Defendants, and each of them, jointly and severally, and request the following relief from the Court.

- a. Certification of the proposed Sub-Classes;
- b. A declaration that Defendants acted with negligence, gross negligence, and/or willful, wanton, and careless disregard for the health, safety of Plaintiffs and members of the Class;
- c. An award to Plaintiffs and the Class of general, compensatory, exemplary, consequential, nominal, and punitive damages;
- d. An order for an award of attorney fees and costs, as provided by law;
- e. Pre-judgment and post-judgment interest as provided by law;
- f. Equitable or injunctive relief, including, but not limited to, an order requiring defendants:

1. To establish and implement a medical monitoring program for Plaintiffs and the Class Members.
 2. An order requiring the Defendants to fund a trust that will cover a prospective medical monitoring program.
- g. An order for all such other relief the Court deems just and proper.

JURY DEMAND

Plaintiffs demand a trial by jury of any and all issues in this matter so triable.

Dated: May 26, 2020

Respectfully Submitted,

NAPOLI SHKOLNIK PLLC

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